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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,008	11/23/2005	Peter John Miller	KILBU P-73 / 500728	1716
26418	7590	06/29/2007	EXAMINER	
REED SMITH, LLP			CHANG, SUNRAY	
ATTN: PATENT RECORDS DEPARTMENT			ART UNIT	
599 LEXINGTON AVENUE, 29TH FLOOR			PAPER NUMBER	
NEW YORK, NY 10022-7650			2121	
			MAIL DATE	
			DELIVERY MODE	
			06/29/2007	
			PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/522,008	Applicant(s) MILLER ET AL.	
	Examiner Sunray Chang	Art Unit 2121	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 and 17-22 is/are pending in the application.
- 4a) Of the above claim(s) 15 and 16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 and 17-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is in responsive to the paper filed on April 16th, 2007.

Claims 1 – 16 are presented for examination.

Claims 1 – 16 are rejected.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

2. **Claims 1 and 8 are rejected** under 35 U.S.C. 103(a) as being unpatentable over Toru Futawatari (U.S. Patent No. 6,357,289 and referred to as **Futawatari** hereinafter), and in view of William C. Fischer, Jr. (U.S. Patent No. 4,965,879 and referred to as **Fischer** hereinafter)..

Regarding independent claims 1 and 8,

Futawatari teaches,

- A control system for a load [an automatic transmission control system having a fail-safe function ... gear mode, Abstract], the system comprising
- a first microprocessor having an output to provide a drive signal to drive the load [an automatic transmission control unit, Abstract; Col. 1, lines 7 – 16 and Fig. 1] and
- to monitor the operation of the load [a fail-safe function, Abstract; Col. 1, lines 7 – 16 and Fig. 1].

Futawatari does not teach a second microprocessor having an output to drive the load and being arranged to monitor the operation of the load.

Fischer teaches,

- a second microprocessor having an output to drive the load and being arranged to monitor the operation of the load .[VMS controlling many subsystems ... receives input signals from sensors and provides commands to actuators controlling many subsystem, Col. 3, lines 25 – 47], for the purpose of a dual fail-safe function. [Col. 7, lines 34 – 35]

It would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify the teaching of **Futawatari** to include “a second microprocessor having an output to drive the load and being arranged to monitor the operation of the load”, for the purpose of a dual fail-safe function. [Col. 7, lines 34 – 35]

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3. **Claims 2 – 7, and 9 – 14 are rejected** under 35 U.S.C. 103(a) as being unpatentable over **Futawatari**, and further in view of Toshiro Matsuda (U.S. Patent No. 4,709,341 and referred to as **Matsuda** hereinafter).

(**Futawatari** as set forth above generally discloses the basic inventions.)

Regarding dependent Claim 2,

Futawatari teaches a control system for a load [an automatic transmission control system having a fail-safe function ... gear mode, Abstract].

Matsuda teaches, both microprocessors monitor the current in the load. (see col 1, lines 38-42) for the purpose of carrying out a fail-safe operation. [Abstract]

It would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify the teaching of **Futawatari** to include "both microprocessors monitor the current in the load", for the purpose of carrying out a fail-safe operation. [Abstract]

Regarding dependent Claim 3,

Matsuda teaches, a first resistor is connected between a driver output of the first microprocessor and an input of the second microprocessor (see col 4, lines 7-10), to allow the second microprocessor to monitor if the first microprocessor is attempting to turn on the load (see col 7, lines 14-19), for the purpose of carrying out a fail-safe operation. [Abstract]

Regarding dependent Claim 4,

Matsuda teaches, a second resistor with a value less than that of the first resistor, is connected between the output of the first microprocessor and a low voltage to ensure a driver controlling the load is off whenever the output of the first microprocessor is in a high resistance state. (see col 4, lines 7-10 and also see col 4, lines 27-29), for the purpose of carrying out a fail-safe operation. [Abstract]

Regarding dependent Claim 5,

Matsuda teaches, at least one of the microprocessors is arranged to calculate the current of the load by measuring the voltage across it, and when the load current does not meet predetermined criteria, to switch out the load. (see col 4, lines 24-29), for the purpose of carrying out a fail-safe operation. [Abstract]

Regarding dependent Claim 6,

Matsuda teaches, the control system is a vehicular control system. (see col 1, lines 61-68), for the purpose of carrying out a fail-safe operation. [Abstract]

Regarding dependent Claim 7,

Matsuda teaches, the load is a gear box selector, a clutch selector, or a valve. (see col 3, lines 45-54), for the purpose of carrying out a fail-safe operation. [Abstract]

Regarding dependent Claims 8 – 14,

Claims 8 – 14 are directed to the same subject matter as claimed throughout claims 1 – 7; therefore claims 8 – 14 are rejected under the same rationale as claims 1 – 7 cited above.

Regarding dependent Claims 17 – 22,

Fischer teaches,

- a second microprocessor also monitors the operation of the first microprocessor and arranges the system if detect a fault from first microprocessor or from the load .[VMS controlling many subsystems ... receives input signals from sensors and provides commands to actuators controlling many subsystem, Col. 3, lines 25 – 47], for the purpose of a dual fail-safe function. [Col. 7, lines 34 – 35]

Response to Amendment

Claim Rejections - 35 USC § 102 and 103

4. Applicants' arguments regarding **Futawatari** fails to teach a second microprocessor monitoring the load and the first microprocessor, which is agreed and forth 102 rejections have been withdrawn; yet, further reference **Fischer** has been cited to be combined with **Futawatari** to form a new set of rejections in current office action.

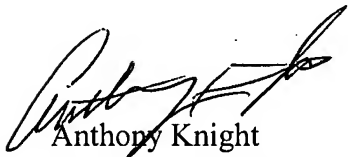
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Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sunray Chang who may be reached Monday through Friday, between 8:00 a.m. and 5:00 p.m. EST. via telephone number (571) 272-3682 or facsimile transmission (571) 273-3682 or email sunray.chang@uspto.gov.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Knight can be reached on (571) 272-3687.

The official facsimile transmission number for the organization where this application or proceeding is assigned is (571) 273-8300.



Anthony Knight
Supervisory Primary Examiner
Group Art Unit 2121
Technology Center 2100
U.S. Patent and Trademark Office

June 23, 2007